

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated below, in marked-up format. Applicants declare no new matter is added by these amendments.

In paragraph [0010]:

[0010] Application of these techniques to drilling ~~of~~ in shallow unconsolidated formations in a deepwater environment encounters various problems. The temperature is often relatively low, the dynamic physical processes encountered during drilling make placement difficult, and the presence of methane hydrates mean that any exothermic reactions can lead to significant stability problems.

In paragraph [0016]:

[0016] The activator can be an acid solution containing ions or compounds that cause cross-linking to take place in the treatment fluid leading to in-situ gelling of the fluid. One such fluid comprises an acidic solution of zirconium chloride, for example a solution of 5% active material at a pH of 0.5 and a specific gravity of 1.01g/cm³. Alternatively, the fluid can comprise zirconium acetate with, for example, a zirconium content of 15-16%, a pH of 3.5 and a specific gravity of 1.28g/cm³. The treatment solution or the activator may optionally include colloidal silica, for example at levels of about 1%. The activator reacts relatively quickly at low temperatures (~~4-15~~⁻⁴°C), and the cross-linking is not exothermic.

In paragraph [0035]:

[0035] Figures 6a - 6d show one example of a core after treatment. It is ~~easily~~easy to distinguish consolidated and unconsolidated parts. The consolidation treatment results in cores, parts of which can be handled (the unconfined compressive strength measurements of these consolidated parts of the cores can be made using mechanical press), and parts in which the wetted sand is completely unconsolidated and has no inherent strength (when extruded from the tube the sand liquefies and flows). Consolidated zones are obtained at the top of the sand column, mainly due to the injection time used by the experimental procedure. The treatment fluid penetration should be sufficient in order to obtain a measurable consolidated zone i.e. between 3 and 5 cm. The sand core can be divided in three separated zones whatever the test conditions as follows:

In paragraph [0038]:

[0038] As crosslinking is developing a very slight gel is forming by small microgels. The development of stronger gels becomes measurable by tongue lengths. These tongue lengths are measured by placing each tube horizontally allowing the gelling composition to flow to its equilibrium position and then measuring then length of the tongue formed. As gelation progresses with time, stronger gels and shorter tongue lengths are developed. The gel strength is expressed mathematically as:

$$\% \text{Gel Strength} = (TL - tL \times 100 / TL)$$